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SECURITY INFORMATION

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PROVISIONAL INTELLIGENCE REPORT

PETROLEUM IN THE SOVIET BLOC

PRODUCTION AND EXPLORATION OF PETROLEUM IN THE USSR

CIA/RR PR-17 (L-B)

ANNEX

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Note

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ANNEX
APPENDIX A

DERIVATION AND SOURCES OF DATA

1. Petroleum Geology and Oilfield Exploitation.*

Reference c (2) is a condensed source of information on Soviet petroleum geology. For records of Soviet oilfield exploitations as well as petroleum geology, considerable detail is provided in References a, d, e (1) and e (2). For an analysis of pre-war data with intelligence estimates of the potentials now existing in this connection, basic information is contained in References a to f, inclusive. The information in question has become increasingly meager since 1939. Various other intelligence sources furnish some of the information for the subsequent periods, but mostly in fragmentary or generalized form. These other sources are especially those dealing with oilfield exploitation. Many classified reports contain what appears to be proper information for target lists, referring to restricted oilfield areas in a manner similar to others that refer to restricted areas with refining facilities. Reports of this character are, however, typically too barren in detail, or too ambiguous even when other sources substantiate the data, for much use in estimating potentials. Cf. Reference h.

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* See Section 3 of this Appendix for a list of selected references.

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Reference b includes some data upon recent oil geology developments in the USSR, and also contains estimates of the recent exploitation and production potentials. But where this source appears to give the later data with a responsible basis, less reliable origins are believed to prevail for the similar later information in 25X1

Reference e (1). The source of the latter [redacted] 25X1

25X1

[redacted] has not been in the USSR since the beginning of World War II. [redacted]

[redacted]

25X1

25X1

[redacted]

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2. Petroleum Production in the USSR.

Recorded statistics are believed to be reliable for the total annual petroleum productions obtained prior to World War II in the USSR. Non-Communist analyses are believed to have further derived reasonably accurate estimates of the subsequent annual USSR petroleum productions. Special references upon these productions are list in part 3 of this Appendix. An intelligence estimate if presently made of the 1950 USSR petroleum yield by productive regions, and for this the following correlations and assumptions are applied. Here the quantities are stated in thousands of metric tons per year (T_{e3}/Yr), and otherwise in barrels of 42 US gallons per calendar day (BPCD). In this connection, it is noted that the 1950 production "Plan" was not published in complete detail for the separate productive regions in Russia (i.e., the Soviet Union).

The total 1950 Soviet natural petroleum production is assumed to have been 37,500 T_{e3}/Yr (References k(7), k(8)). Of this total, 16,500 T_{e3}/Yr were derived from the "eastern" regions (Reference k(7)). There are eight of these eastern regions, comprising the Second Baku, Pechora, Sakhalin, and Soviet Central Asia productive areas.

The Second Baku consists of three productive regions, Volga, Ural, and Kama, and it is convenient to combine the first two as the Volga-Ural region. The Second Baku, Pechora, and Sakhalin areas lie within the Federal Republic of Soviet Russia (Russian Socialist Federated Soviet Republic, RSFSR), and the Soviet Central Asia regions lie within five other constituent republics (Soviet Socialist Republics, SSR) of Russia (Union of Soviet Socialist Republics, USSR). The Volga-Ural region consists

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of the Volga region in Kuibyshev Oblast and of the Ural region in the autonomous republics (Autonomous Soviet Socialist Republics, ASSR) of Bashkir and Tatar.

The Kama region lies within Molotov Oblast, the Pechora Region lies within the Komi ASSR, and the Sakhalin region lies within Sakhalin Oblast.

The Soviet Central Asia regions are those designated as Emba, (Kazak SSR), Turkmen (Turkmen SSR), and Southeastern Central Asia (SSR of Kazak, Uzbek, Kirghiz, and Tadzhik). The Kazak SSR production is minor in the last region and it may be considered to be a portion of the Emba region for estimating.

21,000 T₂/Yr was therefore produced in 1950 in the eight "western" productive regions of the USSR. The eight regions in question are situated in southern European Russia, comprising the Carpathian, Central Southern, and Soviet Caucasus productive areas. The Carpathian (Western Ukraine) region is the former Polish productive area, now in the Ukraine SSR. The Central Southern area is of minor importance, consisting of the Eastern Ukraine region which is also in the Ukraine SSR, and of the Crimea region in the RSFSR. The Soviet Caucasus regions consist of the Kuban-Maikop and Grozny regions in the RSFSR, of the Daghestan region in the Daghestan ASSR of the RSFSR, of the Baku region in the Azerbaijan SSR, and of the minor South Georgian region in the SSR of Georgia.

14,500 T₂/Yr was the "Plan" goal for the RSFSR, containing the Volga-Ural, Kama, Pechora, Sakhalin, Crimea, Kuban-Maikop, Grozny, and Daghestan regions (Reference k(1) and k(2)). 12,700 T₂/Yr was the "Plan" goal for the eastern regions consisting of Volga-Ural, Kama, Pechora, Sakhalin, Emba, Turkmen, and Southeastern Central Asia (Reference k(7)). Including the small eastern production of the Kazak SSR in the Southeastern Central Asia region, the "Plan" goal for the Emba region was

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1,200 Te_3/Yr (References k (1) and k(2)). The similar "Plan" goal for the Turkmen region was 1,104 Te_3/Yr and exclusive of the small eastern production of the Kazak SSR, it was 1,206 Te_3/Yr for the Southeastern Central Asia region (1,066 in Uzbek, 80 in Kirghiz, and 60 in Tadzhik) (References k(1) and k(2)). Therefore in the Volga-Ural, Kazak, Pechora, and Sakhalin regions of the RSFSR, the "Plan" goal was 9,190 Te_3/Yr ($= 12,700 - 1,200 - 1,104 - 1,206$). In the Crimea, Kuban-Maikop, Grozny, and Dagestan regions of the RSFSR, it was 5,310 Te_3/Yr ($= 14,500 - 9,190$).

The remaining "Plan" goals were 325 Te_3/Yr in the Ukraine SSR (Carpathian and Eastern Ukraine regions), 17,000 Te_3/Yr in the Baku region, and 110 Te_3/Yr in the South Georgian region. This gives a total "Plan" goal of 35,455 Te_3/Yr for 1950 in the USSR (References k(1) and k(2)).

According to official statements of Bulganin (Reference k(7)) and Baibakov (Reference k(8)), these five productive areas exceeded the "Plan" goals in 1950: Kuban-Maikop region, Grozny region, Turkmen region, Volga region (Kuibyshev area), and the Bashkir area of the Ural region. Further according to the Bulganin statement, restoration to pre-war status was accomplished in two of the latter regions (Kuban-Maikop and Grozny), as well as in the Carpathian or Western Ukraine region (Reference k(7)). Bulganin also reported special satisfactory results in the areas designated as Turkmen, Kuibyshev, and Bashkir, as well as in the Sakhalin region, the Emba region (Kazak area), the Tatar area of the Ural region, and the Uzbek area of the Southeastern Central Asia region. Therefore it is assumed that in the Carpathian, Kuban-Maikop, and Grozny regions, the respective 1950 productions approached pre-war yields. It is noted that the Bashkir and Tatar areas constitute the Ural region, and that the Uzbek area furnishes most of the production in the Southeastern Central Asia region. Correlating these considerations, it is assumed that the "Plan" goals were at least

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attained in the Volga-Ural, Sakhalin, Emba, and Southeastern Central Asia regions.

Intelligence generally indicates that the "Plan" goals were representative of the actual regional productions, except for the deficiency in Baku and the large relative increase and excess in the eastern regions (References k(1), k(2), and k (7)). The Kuban-Maikop region produced 2,471 Te_3/Yr in 1939, and the Grozny region 2,164 Te_3/Yr . The total of these 1939 values (4,635 Te_3/Yr) is equivalent to about 90,700 barrels per calendar day (BPCD), and assuming their combined 1950 production to have been within 1.5 percent of this, or 89,000 BPCD (4,450 Te_3/Yr), the combined productions in the Daghestan and Crimea regions would appear to be about 860 Te_3/Yr , (= 5,310 - 4,450). The Daghestan value is recorded as only 196 Te_3/Yr in 1939. Projected data, however, infer more than 18,000 BPCD (900 Te_3/Yr) for the 1950 production in Daghestan, and about 300 BPCD (15 Te_3/Yr) in the minor Crimea region (References a(20) and j, and various other intelligence sources referring to the pertinent potentials).

For the Soviet Central Asia regions, the "Plan" goal total was 3,510 Te_3/Yr (70,200 BPCD), and adjusted estimates of the actual 1950 productions give a total of 73,500 BPCD (3,675 Te_3/Yr). The indicated total in the remaining eastern regions (the Volga-Ural, Kama, Pechora, and Sakhalin regions in the RSFSR) would therefore appear to be 12,825 Te_3/Yr (= 16,500 - 3,675). Projected data infer a value of about 225,000 BPCD (11,250 Te_3/Yr) for the 1950 Volga-Ural production, and about 16,000 BPCD (800 Te_3/Yr) for the corresponding Sakhalin region yield (References a(20) and j and various others, similarly as for the Daghestan and Crimea regions). For the Sakhalin region, Reference e estimates that the 1950 production will exceed 10,000 BPCD. The present estimate for Sakhalin is, however, considerably less than the 1,000 Te_3/Yr .

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otherwise tentatively estimated in intelligence analyses. Projections similar to the foregoing show about 9,500 (BPCD (465 Te_3/Yr) for the 1950 Pechora region production, and about 6,500 (BPCD (325 Te_3/Yr) for the 1950 yield from the Kama region.

The South Georgian region is assumed to have produced in the order of the "Plan" goal in 1950. The Ukraine SSR regions (Carpathian and Eastern Ukraine) are assumed to have had similar status in combination. The Carpathian region is in particular estimated to have produced at about the apparent pre-war rate (6,000 BPCD or 300 Te_3/Yr). The estimate for Baku is about 300,000 BPCD (15,000 Te_3/Yr) (Reference k(11)).

The 1950 estimates are summarized in Tables 3 and 3-A. Certain minor adjustments are applied in the table, and certain other productivity data and estimates are included for comparative purposes. Other intelligence references in addition to those designated in the table also contain data for estimating the production break-down in the USSR oil regions in recent years. Typical examples are References a(2), a(4), a(6), a(10), a(16), a(25), e(1), k(4), and likewise several intelligence agency reports not presently listed as reference documents. Other intelligence estimates are especially available for the 1950 break-downs, mostly based upon an erratic sequence of annual production percentages as reported. These percentages are referred to a production base such as the data for 1940, and the percentage cumulations may involve serious error. Some of the isolated and critical percentages of the correlated chain may have been highly erroneous as reported, for instance, and the percentages are sometimes actually unavailable so that they must be estimated to complete the links in the chain. Authenticity of the production base figures may also be open to question

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in applying these percentages. The percentage cumulations give 1950 regional productions somewhat at variance with those presently derived: the latter are essentially based upon the reported 1950 "Plan" fulfillments, correlated with pre-War statistics believed to be authentic.

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TABLE 3. Estimates and Records of Natural Petroleum Production: USSR Areas*
(cont'd)

Regions and Other Areas	References 1 (7) and 1 (8)							
	Crude Petroleum Only				Total with Utilized Natural Gas Fluids 3/			
	1939	1940	1945	1948	1939	1940	1945	1948
Carpathian (Western Ukraine)					a/	a/	a/	
Eastern Ukraine (Summy-Romny)					a/	a/	a/	
Ukraine SSR Area					75 1/	350 1/	350 1/	
Crimea					1/	1/	1/	
Kuban-Maikop	23,075	23,800	13,850	19,200				21,350
Grozny					2,500	2,350	800	
Daghestan					2,350	2,250	1,350	
South Georgian					21,400	22,150	12,500	
Baku					26,250	26,750	14,550	
Soviet Caucasus Area								
Volga					a/	a/	a/	
Ural					a/	a/	a/	
Volga-Ural					a/	a/	a/	
Kama					a/	a/	a/	
Second Baku Area					1,850 2/	1,675 2/	2,500 2/	
Pechora	2,825 4/	2,950 4/	4,925 4/	8,875 4/	2/	2/	2/	10,750 3/
Sakhalin					2/	2/	750	
Kuba					700	775	900	
Turkmen					475	600	850	
Southeastern Central Asia					200	300	1,250	
Soviet Central Asia Area					1,375	1,675	3,000	
Total USSR Area	25,900 4/	26,750 4/	18,575 4/	28,075 4/	29,550 3/	30,450 3/	21,250 4/	32,100 3/

a/ Data not broken down for areas.

* Footnotes for Table 3 follow on p. 15.

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TABLE 3. Estimates and Records of Natural Petroleum Production: USSR Areas
(cont'd)

Regions and Other Areas	REFERENCE a(2)		REFERENCE a(3)		thousand Metric REFERENCE a(5)	
	Crude Petroleum Only (7)		Crude Petroleum Only (7)		Crude Petroleum Only	
	1946	1947	1940	1945	1940	1945
Carpathian (Western Ukraine)	a/	a/	a/	a/	a/	a/
Eastern Ukraine (Summy-Romny)	502 1/	100 2/	400	200	400 1/	400 1/
Ukraine SSR Area					1/	1/
Crimea	3/	1/	23/	23/		
Kuban-Maikop	1,433	100			5,100	100
Grozny	2,729	2,100	4,900 11/	1,900 11/		1,300
Daghestan	175	550			None	550
South Georgian	9/	9/	Negligible	35	21,800	12,500
Baku	21,370 2/	12,300 2/	22,000	11,300		
Soviet Caucasus Area	25,707	17,450	26,900	13,535	26,900	14,850
Volga	a/	a/	250	1,250	9	
Ural	a/	a/	1,500 24/	1,300 24/	a/	a/
Volga-Ural	a/	a/	1,750 25/	2,550 25/	a/	a/
Kama	a/	a/	100	100	a/	a/
Second Baku Area	1,001	5,300	1,850 25/	2,050 25/	1,910 2/	2,685 2/
Dachova	199	150				
Sakhalin	355 10/	350	Unknown	100	2/	2/
			460	1,000	457	900
Emba	484	1,070	697 14/	700 14/	690	1,000
Turkmen	452	1,050	580	600	578	650
Southeastern Central Asia	390	530	260 15/	615 15/	249	375
Soviet Central Asia Area	1,326	2,650	1,537	1,915	1,517	2,025
Total USSR Area	29,092 4/10/	26,000 4/	31,147 20/	19,400 22/	31,184 4/	20,460 4/

a/ Data not broken down for areas.

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TABLE 3. Estimates and Records of Natural Petroleum Productions: USSR Areas
(cont'd)

Regions and Other Areas	REFERENCE K(14)			REFERENCE K(18)		"PLAN"	"PLAN"	FINAL CORRELATION	
	Crude Petroleum Only (?)			Crude Petroleum Only		Crude Goal	Crude Goal	Crude Petroleum Only	
	1940	1945	1950	1950	1950	1950 22/	1950 21/	1939 16/	1950
Carpathian (Western Ukraine)	a/	a/	a/	a/	a/	a/	a/	300 17/	305
Eastern Ukraine (Summy-Romny)	a/	a/	a/	a/	a/	a/	a/	1 17/	25
Ukraine SSR Area	400 1/5/	400 1/5/	800 1/5/	330	325	325	325	301 17/	330
Crimea	1/	1/	1/	1/	23/			1	15 1/
Kuban-Maikop	5,100 5/	8,100 6/	4,800 6/	1,500		5,310 11/	2,471	2,420	
Grozny				1,800	4,840 11/		2,164	2,045	
Paghestan	5/	5/	6/	500			196	925	
South Georgian	5/	5/	5/	120	110	110	60	115	
Baku	21,800	11,300	15,600	17,000	17,000	17,000	21,018	25,150	
Soviet Caucasus Area	26,900	13,400	20,400	20,920	21,550	22,420 13/	25,909	20,655	
Volga				a/	3,000		178	a/	
Ural				a/	4,000 24/		1,594	a/	
Volga-Ural				10,600	7,000 25/		1,772	11,200	
Kama				19/	335		80	325	
Second Baku Area	3,800 4/8/	5,600 4/8/	6,700 4/8/		7,315 25/	9,190 12/	1,852	11,525	
Pachora	5/	5/	5/	800 19/	300		96	180	
Sakhalin				1,200	2,000		473	820	
Bmba				1,300	1,200 14/	1,200 14/	702	1,220	
Turkmen				1,250	1,104	1,104	473	1,200	
Southeastern Central Asia				1,200	1,206 15/	1,206 15/	201	1,255	
Soviet Central Asia Area				3,750	3,510	3,510	1,376	3,675	
Total USSR Area	31,100 4/	19,400 4/	37,900 4/	37,600	35,400 29/	35,445 4/	30,008 4/	37,500 4/	

a/ Data not broken down by areas.

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TABLE 3. Estimates and Record of Natural Petroleum Production: USSR Areas
(Cont'd)

Regions and Other Areas	References 3(7) and 4				Thousands of Barrels			
	Crude Petroleum Only				Total with Utilized Natural Gas Fluids 3b/			
	1939	1940	1945	1948	1939	1940	1945	1948
Eastern Ukraine	a/	a/	a/	a/	a/	a/	a/	a/
Crimea	a/	a/	a/	a/	a/	a/	a/	a/
Central Southern Area	a/	a/	a/	a/	a/	a/	a/	a/
Southern RSFSR Regions	a/	a/	a/	a/	a/	a/	a/	a/
Northern-Eastern RSFSR Regions	a/	a/	a/	a/	a/	a/	a/	a/
Total RSFSR Area	a/	a/	a/	a/	a/	a/	a/	a/
Second Baku Area	a/	a/	a/	a/	1,850 2/	1,675 2/	2,500 2/	a/
Pechora	a/	a/	a/	a/	2/	2/	2/	a/
Sakhalin	a/	a/	a/	a/	2/	3/	750	a/
Soviet Central Asia Area	a/	a/	a/	a/	1,375	1,675	2,000	a/
Eastern Regions	2,825 1/	2,950 1/	4,925 1/	8,875 1/	3,225 3/	3,350 3/	6,250 1/	10,750 3/
Uzbek SSR Area	a/	a/	a/	a/	a/	a/	a/	a/
Kirghiz SSR Area	a/	a/	a/	a/	a/	a/	a/	a/
Tadjik SSR Area	a/	a/	a/	a/	a/	a/	a/	a/
Southeastern Central Asia	a/	a/	a/	a/	200	300	1,250	a/
Ukraine SSR Area	a/	a/	a/	a/	75 1/	350 1/	350 1/	a/
Crimea	a/	a/	a/	a/	1/	1/	1/	a/
Soviet Caucasus Area	a/	a/	a/	a/	26,250	26,750	14,650	a/
Western-Southern Regions	23,675	23,500	13,650	19,200	26,325	27,100	15,000	21,350
Eastern Regions	2,825 1/	2,950 1/	4,925 1/	8,875 1/	3,225 3/	3,350 3/	6,250 1/	10,750 3/
Total USSR Area	25,900 1/	26,750 1/	18,575 1/	28,075 1/	29,550 3/	30,450 3/	21,250 1/	32,100 3/

a/ Data not broken down for areas.

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~~SECRET~~TABLE 3. Estimates and Records of Natural Petroleum Production: USSR Areas
(cont'd)

Regions and Other Areas	REFERENCE a(20)		REFERENCE a(8)		REFERENCE a(5)	
	Crude Petroleum Only (?)		Crude Petroleum Only (?)		Crude Petroleum Only	
	1937	1947	1940	1945	1940	1945
Regions and Other Areas						
Eastern Ukraine	a/	a/	a/	a/	a/	a/
Crimea	a/	a/	a/	a/	a/	a/
Central Southern Area	a/	a/	a/	a/	a/	a/
Southern RSFSR Regions	a/	a/	4,900 26/	1,900 26/	a/	a/
Northern-Eastern RSFSR Regions	a/	a/	2,310 31/	3,250 27/	a/	a/
Total RSFSR Area	a/	a/	7,210 32/	5,650 28/	a/	a/
Second Baku Area	1,003	5,100	1,850 25/	2,650 25/	1,910 2/	2,885 2/
Pechora	199	150	Unknown	100	2/	2/
Sakhalin	355 10/	550	460	1,000	457	900
Soviet Central Asia Area	1,226	2,650	1,537	1,915	1,517	2,025
Eastern Regions	2,863 10/	8,450	3,847 33/	5,665 25/	3,984	5,810
Uzbek SSR Area	a/	a/	200	515	a/	a/
Kirghiz SSR Area	a/	a/	30	55	a/	a/
Tadzhik SSR Area	a/	a/	30	45	a/	a/
Southeastern Central Asia	390	530	260 15/	615 15/	249	375
Ukraine SSR Area	502 2/	100 1/	400	200	400 2/	400 1/
Crimea	1/	1/	23/	23/	1/	1/
Soviet Caucasus Area	25,707	17,450	26,900	13,535	26,900	14,850
Western-Southern Regions	26,209	17,550	27,300	13,735	27,300	15,650
Eastern Regions	2,883 10/	8,450	3,847 33/	5,665 25/	3,884	5,810
Total USSR Areas	29,902 4/10/	26,000 4/	31,147 30/	19,400 29/	31,184 4/	20,460 4/

a/ Data not broken down for areas.

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TABLE 3. Estimates and Records of Natural Petroleum Production: USSR Areas
(contd^a)

Regions and Other Areas	REFERENCE K(14)		REFERENCE K(18)		"PLAN"		FINAL CORRELATION	
	Crude Petroleum Only (7)		Crude Petroleum Only		Crude Goal		Crude Petroleum Only	
	1940	1945	1950	1950	1950 22/	1950 21/	1939 16/	1950
Regions and Other Areas								
Eastern Ukraine	a/	a/	a/	a/	a/	a/	1	25
Crimia	a/	a/	a/	a/	a/	a/	1	35
Central Southern Area	a/	a/	a/	a/	a/	a/	2	40
Southern RSFSR Regions	a/	a/	a/	3,000 20/	4,840 26/	5,310 12/	4,822	5,105
Northern-Eastern RSFSR Regions	a/	a/	a/	12,600	9,615 27/	9,190 12/	2,421	12,825
Total RSFSR Areas	a/	a/	a/	16,400 20/	14,455 28/	14,500	7,253	18,230
Second Baku Area	a/	a/	a/		7,315 25/		1,852	11,525
Pachera	a/	a/	a/	31,400	300	9,190 12/	96	180
Sakhalin	a/	a/	a/	1,200	2,000		473	870
Soviet Central Asia Area	a/	a/	a/	3,750	3,510	3,510	1,376	3,675
Eastern Regions	2,300 4/5/	5,600 4/5/	16,700 4/8/	16,350	13,125 25/	12,700	3,797	16,500
Uzbek SSR Area	a/	a/	a/		1,066	1,066	a/	a/
Kirghiz SSR Area	a/	a/	a/		80	80	a/	a/
Tadzhik SSR Area	a/	a/	a/		60	60	a/	a/
Southeastern Central Asia	a/	a/	a/	1,200	1,205 15/	1,205 15/	201	1,255
Ukraine SSR Area	100 1/5/	400 1/5/	800 1/5/	330 1/	325	325	301 17/	330
Crimia	1/	1/	1/	1/	23/	22,420	1 17/	15
Soviet Caucasus Area	26,900	13,400	20,400	20,920	21,850		25,909	20,655
Western-Southern Regions	27,300 7/	13,800 7/	21,200 7/	21,250	22,275 23/	22,745	26,211	21,000
Eastern Regions	2,800 4/ 8/	5,600 4/ 8/	16,700 4/8/	16,350	13,125 25/	12,700	3,797	16,500
Total USSR Areas	21,100 4/	39,100 4/	37,900 4/	37,600	35,400 29/	35,445 4/	10,008 4/	37,500 4/

a/ Data not broken down for areas.

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Footnotes for Table 3

- 1/ Ukraine SSR value probably includes Crimea.
- 2/ Second Baku value probably includes Pechora.
- 3/ Sakhalin production excluded.
- 4/ Sakhalin production included.
- 5/ Ukraine SSR value includes Pechora.
- 6/ Kuban-Maikop and Grozny value probably includes Daghestan and South Georgian.
- 7/ Pechora production included.
- 8/ Pechora production excluded.
- 9/ Baku value probably includes South Georgian.
- 10/ Excludes Japanese Sakhalin concessions.
- 11/ Southern RSFSR regions.
- 12/ Northern-Eastern RSFSR regions.
- 13/ Crimea included.
- 14/ Includes minor Kazak area production in Southeastern Central Asia.
- 15/ Excludes minor Kazak area production.
- 16/ Published statistics with minor adjustments for region breakdowns. (Cf. References a)
- 17/ Estimate based upon correlation of various data.
- 18/ Intelligence estimate of region break-down.
- 19/ Value for Pechora and Kama combined.
- 20/ Probably exclusive of Crimea.
- 21/ Break-down assumed for present purposes.
- 22/ Break-down shown in Reference a(8).
- 23/ Small production in Crimea Region apparently neglected.
- 24/ Inferentially restricted to Bashkir, excluding Tatar.
- 25/ Tatar production not included by direct inference.
- 26/ Kuban-Maikop, Grozny, and Daghestan Regions; Crimea production apparently neglected.
- 27/ Sakhalin, Pechora, and Second Baku areas, but with Tatar production excluded by inference.
- 28/ Crimea and Tatar area productions not specifically included.
- 29/ Specifically includes production from Sakhalin, but not from Crimea and Tatar areas.
- 30/ Specifically includes production from Sakhalin, but not from Crimea, Tatar, and Pechora areas.
- 31/ Sakhalin and Second Baku areas except for inferential exclusion of Tatar productions; Pechora not included.
- 32/ Crimea, Tatar, and Pechora productions not specifically included.
- 33/ Tatar and Pechora productions not specifically included.
- 34/ Reference specified natural gas liquids but may include associated natural gas.

~~SECRET~~3. Annotated List of Selected References.

NOTE: This list excludes intelligence references on oil processing and the related subjects of petroleum chemistry except where certain source data on these phases of the Soviet petroleum industry are listed either incidentally or for systematic grouping. The reference list is continued for processing and petroleum chemistry in Appendix B, Part 5 of Paper C. Refining of Petroleum in the USSR. References are omitted to prior estimates and intelligence analyses having origin in the CIA and similar governmental agencies, except where the documents are especially pertinent to the present study. Except for a few items considered to be especially important, the selections are further restricted to source data available in English. Numerous and valuable additional references are, however, often designated in the documents selected for listing. Specific note is made in the annotations when the additional reference listings are considered to be important.

a. General Data on Soviet Petroleum Industry and Production.

(1) New Oil Regions in the USSR and Their Future Development. Technical book in Russian, published 1926. Contains studies and maps on the Crimea, Caucasus, Turkmen, Fergana, Pechora, and sub-commercial Astrakhan oil productive areas.

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13 June 1951, Restricted.

(2) The Crude Oil Economy in the USSR. Secret. 62 pp. Intelligence translation of a comprehensive and detailed study by Data through 1944.

25X1

Includes some data that appear to be inaccurate.

(3) Petroleum Resources of the Union of Soviet Socialist Republics. Intelligence report prepared jointly by Petroleum Administration for War, Foreign Divisions; Office of Strategic Services, Petroleum Division; Foreign Economic Administration, Petroleum Division; Office of the Quartermaster General, Fuels and Lubricants Division. Confidential. Provides complete coverage, statistical tables, maps. 232 pp. World War II report.

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(4) Soyetskii Nefti. Recently published technical book in Russian on Soviet oil. Contains data on USSR oil-producing areas and districts, roughly corresponding to the regions and fields as ordinarily defined for intelligence study. Cf. Nefti. Intelligences 193-247. CIA 117127. 19 August 1947. Restricted.

(5) T. W. WHITNEY, Report on Petroleum Production in the USSR. Moscow. American Embassy Despatch #20, 28 June 1945. Confidential. Comprehensive coverage of the Soviet petroleum production status then apparent, correlated with details of the past by oil productive regions. Includes estimates of the 1940 and 1945 productions by regions, with extensive bibliographical references to official Soviet publications. 13 pp.

(6) The Current Petroleum Situation in the USSR. Department of State, Office of Research and Intelligence, No. 3604. 7 June 1946. Confidential. Contains extensive bibliographical references. 46 pp.

(7) ONI Monthly Review: Soviet Oil. December 1946. Confidential. 4 pp.

(8) ORI 4/1. Petroleum Resources within the USSR. 16 June 1947. Secret. 13 pp. with map.

(9) Army R-287-48; CIA 208702. 12 April 1948. Confidential. Contains estimates of known USSR oil reserves; describes Soviet petroleum industry and breakdown into trade unions; describes long-range plans and the currently fallacious propaganda formulated by the Soviets with respect to this industry. Lays special stress on the Caucasus regions. 7 pp. Source: Soviet Caucasian refugee.

(10) Army. EUCOM (European Command) IDIQ RF-61-48; CIA 207686. 17 May 1948. Secret. English translation of a technical paper in Russian, Petroleum in the USSR. Submitted to US agency Comprehensive coverage; contains statistical and technical details. Accuracy of data questionable in some instances.

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17 pp. Cf. also Naval Intelligence 208-S-48, CIA 221138, 8 June 1948, Secret.

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(11) [] 1 December 1948, Secret. USSR Petroleum Extraction and Refining.

Abstracts from captured German army reports. 9 pp.

(12) Es Rpt. No. J-391, Soviet Oil Production. ID report 29 March 1949.

Confidential. 7 pp.

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(13) [] 25X1

n (2) (g).

(14) CIA 324792, May 1949. Secret. Single page table; extract from War Department document. Shows production estimates for USSR for 1940, 1945 - 1950. Covers various commodities, etc. Includes production data for petroleum, petroleum products, natural gas.

25X1

(15) [] 6 June 1949. Confidential/US Officials Only. USSR :
Crude Oil Production. Information of late May 1949. 1 pg.

(16) D.D. MOORE, R. T. LUND, The Soviet Petroleum Industry. Project Rand
RM-418, 31 January 1950. Secret. 48 pp. with maps; charts; diagrams; tables;
list of references.

(17) Petroleum-Green Gold. Recently published technical book in German dealing
with the petroleum industry in the Soviet Bloc. Data evaluated as seriously in error
in some instances. Cf. Naval Intelligence 52-41-50, CIA 432404, 17 February 1950.

Restricted.

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(19) GIA 400522. 31 July 1950. Secret. [redacted] : Oil Productionin Russia and Satellites. 3 pp.

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(20) D. M. GILPIN, Is Petroleum a Soviet Weakness? Oil and Gas Journal Vol 42, No. 33 (21 December 1950). Brief review of the Soviet petroleum industry in the past, with a generalised overview and estimate of the current status. The latter appraisal and estimate seems to offer little of value for intelligence analyses, and classified intelligence does not always confirm the data included. The report is based upon "extensive published and unpublished materials" available to the American Research Center (the latter is the institution at Harvard University, established in February 1947 by means of a Carnegie Corporation grant for the study of Soviet economy and behavior). The report gives reserve statistics and includes an estimate of the 1947 crude productions by regions, with 26 million metric tons estimated for the total 1947 field. Generalized analytical data are shown for gasoline and crude oil. Detailed analytical data are included for a few selected crude samples, and these are reasonably consistent with more comprehensive data. Fragmentary information is provided with regard to the petroleum consumption pattern, the current productions of crude and natural gas, and the existing status of refining. It is noted that the report includes an estimate of 17.5 - 18.0 million metric tons per year for the present "national expansion" capacity. A value similar to that has been independently derived in intelligence analyses for the total steel conversion capacity, existing as of 1950.

(21) L'Industrie Petroliere de l'U.R.S.S. 1950. Secret. English translation

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(22) Soviet Anniversary Speech by Beriya. English translation from Russian,

Moscow, Soviet Home Service, 6 November 1951, 1600 GMT-L (Relay from the Bolshoi Theater), released in USSR Home Service, 7 November 1951, pp. AAl-AA27, Confidential.

Gives the following comments on the Soviet petroleum industry: "Even more considerable successes have been achieved in our oil industry. For a number of years past the annual increase in our oil output has amounted to 4.5 million tons. In the current year the oil extraction plan will be exceeded. As a result of the implementation of a large program of oil prospecting, valuable oil sources have been discovered in many areas and prospected oil reserves have grown considerably. Work for the building and expanding of oil refineries has developed on a large scale. New works equipped with first class Soviet technique which began to work this year, can by themselves process six million tons of oil yearly. One can say with confidence that the task set by Comrade Stalin to bring the production of oil up to 60 million tons a year will be fulfilled ahead of schedule." The above comments on refinery construction are considered to be so confused, ambiguous, and obscure that realistic interpretation is scarcely possible. The text of Beriya's speech appeared in Izvestiya, 7 November 1951.

(23) CIA 719524; Air Technical Intelligence Center Translation F-TS-7193-RE.

T. I. 358, M. I. F. Released 2 February 1952. Unclassified. Translation (28 pp.)

of a paper published in Neftyanoi Khoziaistvo (Petroleum Economy), 1939, No. 4-5:

M. I. VARENTSOV: Prospecting, Exploration, and Exploitation of Petroleum Deposits

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During the Third Stalin Five-Year Plan. Includes condensed and presumably authentic notes on the separate oilfields by then productive in the USSR oil regions; mostly data with the usual quality of propaganda, relating to the progress and future plans then current with respect to exploration and production.

(2A) World Oil Atlases. References consisting of the special World Oil Atlas issues of the US trade journal now called World Oil and formerly Oil Weekly. In the first three issues, useful outlines are provided for the regional USSR oil exploitations and productions prior to World War II. The first four issues include geographic maps of the USSR oil productive regions, together with brief summaries of Soviet activities supposed to be prevailing in the petroleum industry. In the maps and summaries of the latter types, however, there appears to be a mixture of fact, hearsay, and error. The latter three special numbers of this series are designated as International Operations Issues. With respect to the USSR areas in the 1950 and 1951 numbers, maps are omitted and little discussion is included.

- (a) 1946 World Oil Atlas. The Oil Weekly, Section 2, 20 May 1946.
- (b) 1947 World Oil Atlas. The Oil Weekly, Section 2, 30 June 1947.
- (c) 1948 World Oil Atlas. World Oil, Section 2, July 1948.
- (d) International Operations Issue. World Oil, Vol. 129, No. 4, 15 July 1949.
- (e) International Operations Issue. World Oil, Vol 131, No. 2, 15 July 1950.
- (f) International Operations Issue. World Oil, Vol. 133, No. 2, 15 July 1951.

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Next 1 Page(s) In Document Exempt

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c. USSR Petroleum Geology Studies by F. Julius Fohs.

(1) F. JULIUS FOHS. Oil-Reserve Provinces of Middle East and Southern Soviet Russia. Bulletin of American Association of Petroleum Geologists. Vol. 31, No. 8 (August 1947), pp. 1372-1383. Includes extensive bibliography. Cf. 25X1A2G
CIA 169181. 17 March 1948, Restricted.

(2) F. JULIUS FOHS. Petroliferous Provinces of USSR. Bulletin of American Association of Petroleum Geologists. Vol. 32, No. 3 (March 1948), pp. 317-350.

A comprehensive and condensed outline of the known USSR petroleum geology through 1948. Includes a selected bibliography of 74 technical papers, covering all languages and a period of several years through 1947. This bibliography is believed to include most of the recent important published works that have related to the petroleum geology of the USSR. Cf. 25X1
CIA 169138. 17 March 1948, Restricted.

d. Additional General and Petroleum Geological Studies of the USSR.

25X1



25X1

(2) T.T. CONTA, W.A. SHUEMBERGER, Oil Fields of Middle Asia.

English translation of Russian geological article in Oil Economics, No. 11 (1934).

Confidential. 14 pp.

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25X1

(3) [] CIA 164583. Restricted. Abstract translations of 9 Russian

geological papers on oil and gas areas, published from 1945 to 1947. 3 pp.

25X1

(4) [] A. A. TROFIMUK. Prospects of Upper Devonian and Earlier

Oil-Bearing Deposits in Western Bashkir. English translation of Russian geological

article in Sovetskaya Geologiya, No. 28, 1946. 23 August 1949, Confidential. 6 pp.

• Special Monographs on Soviet Petroleum Industry Topics.

25X1A2G (1) [] Monograph Series by One Intelligence Source.

(NOTE: See Section 1 of this Appendix for comments on this source.)

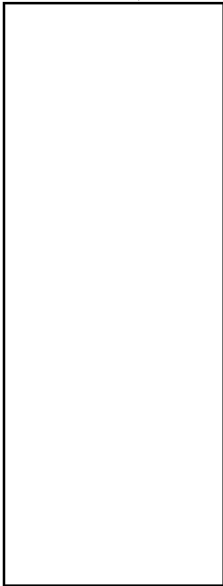
A series of intelligence reports (i.e., enclosures) relating to oil production regions and other designated petroleum subjects in the USSR. These generally have from 20 to 45 pp. of text, and usually include maps and tables. Classification Secret/US Officials Only. Distribution from late 1949 onwards.

25X1

	<u>Survey of the Soviet Oil Industry.</u>
	<u>Study of the Volga-Ural Oil Regions.</u>
	<u>The Azneft Production and Exploration Operations. Camp an</u>
	<u>The Emba Oil Region (Kazakhstanneft).</u>
	<u>The Oil Regions of Central Asia.</u>
	<u>The Grozny Oil Region.</u>
	<u>The Turkmenian Oil Region(Turkmenneft).</u>
	<u>The Daghestan Oil Region (Dagneft).</u>
	<u>The Oil Fields of the Sakhalin Island(Dalneft).</u>
	<u>The Natural Gas and Petroleum Substitutes Industry</u> <u>in the USSR.</u>


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The Cracking Process in the USSR.
The Exploited Oilfields of the Baku Region.
The Oilfields of Ukraine (Ukrneft).
The Oilfields of Georgia (Gruzneft).
The Oil Industry of the Satellite States.
The Vkhita Oil Region. Pechora Region.
The Maikop-Kuban Black Sea Oil Regions.
The Baku Oil Fields in 1951.

(2) Monograph on Sakhalin Petroleum Region.

CIA 562032. Classified Report 1, Natural Resources Section, General Headquarters Supreme Commander for the Allied Powers. Petroleum Resources and Production in North Sakhalin.  November

25X1

1950. Secret. Covers the oil productive areas of Sakhalin, the offshore Asiatic Pacific Ocean island which is now completely within the USSR. An engineering report very complete in detail from the standpoints of geology, exploration, reserves, prospects, exploitation, production, and crude quality. Data appear to be authentic through 1947. Includes a bibliography of 30 selected references. 74 pp. plus maps, charts, and tables.

f. Miscellaneous Data on Soviet Regional Oil Industry.

(1) CIA 210033. Siberian Oil. Secret. One page extract translation of a German document. Probably 1943.

(2) Army R-454-48; CIA 223933. 23 June 1949. Confidential. Continued from Army R-237-48, and indicated to be continued in later similar reports not identified.

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at present. English translations of certain portions of a French language report covering the Soviet Caucasus oil reserves and developments. Given data are frequently incompatible with other available intelligence on the subject.

(3) CIA 242312. Foreign Documents Branch Translation 180. Petroleum Industry in the Caucasus. 27 September 1948. Confidential. Extract translation from German document Kaukasus (Caucasus), prepared by Wannsee Institute in 1942, published by Chief of Security Police and Security Service. Comprehensive intelligence coverage of the industry in the area. 66 pp.

(4) CIA 525423. USSR: Oil Production [redacted] Air Intelligence 25X1
Information Report 49-48-2-32. 1 October 1950. Confidential. [redacted] 25X1

25X1 [redacted]
 Single page. Cf. Reference f(8).

25X1 (5) [redacted] CIA C 1717. 2 January 1951. Secret/US Officials Only.
 Enclosure: Maps supposed to show correct information on the Kuban-Maikop and certain other oil regions in the USSR. Source: [redacted] 25X1

[redacted] 25X1

25X1 (6) [redacted] USSR: Petroleum Production in Baku. 25 November 1947, Confidential. English translation of Russian article by M. MERTCHYAN in Planovoye Khozaystvo. 8 pp.

(7) CIA 329031. [redacted] 25X1
 contains 6 pp. of specific notes on the Baku oilfields. Secret. Probably 1948.

(8) CIA 525424. USSR. Oil Production, Baku. Air Intelligence Information Report 49-48-2-31. 1 October 1950. Confidential. Origin of data same as in

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Reference f(4). Single page.

25X1

(9) [] CIA 159868. 24 February 1948. Confidential. Enclosure

Structural map of the oilfield on the western part of Cheleken Island, Turkmen

region. Map by V. P. PORFIREV as published in official USSR organ in 1931.

(10) Treasure Island Serial 38604. Extract 3 March 1950. Restricted. 1 pg

Data from a Moscow publication showing the 1945 Uzbek (Fergana) oil production

as 500,000 tons; more than twice this was then expected for the 1950 yield.

(11) Army. EUCOM 7707 ECIC (European Command Intelligence Center) RT-1196-4

(A-917). 19 September 1949. Secret. Contains 3 pp. of data on the Emba oilfield;

with a note on processing included.

(12) CIA 523394. USSR: Emba Oil Region, Kazakh SSR. ID report RT-977-50.

19 September 1950. Secret. [] specialists on the 25X1

economy of the Soviet Union. 20 pp.

(13) Oil Industry in Carpatho-Ukraine Oil Region. Department of State,

Scientific Intelligence Report No. 5/1. 8 March 1950. Confidential. Also

25X1 released as [] Data to early 1949. Contains

information on refineries at Drogobych and Borislav. 8 pp. with location

maps of refineries.

(14) Army. EUCOM ID HQ RT-39-50 (STI 3776); CIA 452107. 20 April 1950.

Confidential. Oil Industry in the Carpatho-Ukraine Oil Region. Source: 25X1

[]
USSR. 11 pp.

(15) Developments at Tuymazy, USSR Ural Oil Producing Region.

"Treasure Island" abstract of official Soviet publication; articles in

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N: Pravda (Truth), No. 16, 19 January 1946. Serial Number 88790, abstract 1

February 1951. 2 pp. Restricted.

5. Data on Soviet Oil Exploration in the Arctic.

25X1

(1) CIA 231100. USSR: Geological Exploration. 16 August 1948.

Restricted. Abstracts of 23 technological and economic Russian articles on the

Arctic oil and mineral regions. Articles published as extensive symposia on

The Main Administration of the Northern Sea Route; symposium No. 1, 1946,

and symposium No. 2, 1947, Nedra Arktika.

(2) CIA 292435. USSR: Physical Geography and Geological Data for the

Khatanga River-Cape Nordvik Oil Prospect Region. 19 January 1949. Secret.

2 pp. of technological notes on a mineralized region with oil prospects, located

at the Arctic Ocean in western Siberia, south of the eastern end of the Taimyr

Peninsula. Source:

25X1

(3) CIA 309157; Army R-394-49. USSR: Petroleum Research in Arctic (Cape

Nordvik Area). 4 April 1949. Secret. 8 pp. of text, giving accounts of expeditions

with technological data for areas. Maps included.

25X1

(4) CIA 487269; Army. EUCOM 7707 ECIC RT-651-50 (STI 3819). USSR: Soviet Oil

Exploration in the Nordvik-Khatanga Arctic Region. 29 June 1950. Secret. 6 pp.

of physical and technological data relative to the Nordvik Expeditions. Source:

25X1

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(5) CIA 556187. USSR: The Nordvik Oil Expedition. State Despatch, Frankfurt

2228, 15 January 1951. Secret. Scientific intelligence report, elaborating upon

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Reference (g) (3), same source. 26 pp. of text; maps, charts, tables.

(6) State Despatch, Frankfurt 2329. 24 January 1951. Secret. Oil at Ust' Port. Reporting lack of commercial oil deposits in the oil prospect region in the lower Yenisei River Valley, in western Siberia at the Arctic Ocean to the west of the Taimyr Peninsula.

(7) CIA 557261. 16 November 1950. Secret. Organizational Structure of Soviet Geological Reconnaissance Expeditions. Outlines the standardized organization and function pattern adopted by the Soviets in typical expeditions. Typical expeditions were those to the Yenisei River and Khatanga Bay-Cape Nordvik regions in northwestern Siberia; and in central eastern Siberia, to the oil prospect region in the central drainage basin of the Lena River, extending from the valley of the Vilyei River tributary on the west, through Yakutsk on the Lena River in the central portion, to Ust' Maya in the valley of the Aldan River tributary on the east. 4 pp. USSR source. (Army, EUCOM 7707 ECIC ID HQ RS-324-50.)

h. Fragmentary Intelligence on Soviet Oilfields: Selected Typical Reports.

(1) Army Reports; Mostly Data from Refugees, DP's, PW's.

(a) ID-ECIC, ICF 2635. July 1948. Confidential. Oktyabrsk oilfields in Ural region. 2-sheet card and location map.

(b) ID-ECIC, ICF 2647, November 1948. Confidential. Oktyabrsk-Tuimazy oilfields. 2-sheet card and location map.

(c) ID-ECIC, ICF 5307. November 1948. Confidential. Oktyabrsk oilfields. Single sheet card.

(d) ID-ECIC, ICF 5308. September 1948. Confidential. Oktyabrsk oilfields.

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Single sheet card.

(e) ID-ECIC, ICF 8903. August 1949. Confidential. Saratov oil(?)

and natural gas fields. 3-sheet card.

(f) USFA, ID HQ VI-1023; CI 321831. November 1948. Confidential.

Oil deposits in the Volga region. 2-sheet card. Data obtained via the US Forces in Austria (USFA).

(g) FEC, ID HQ 549; CIA 323920. Information of May 1947. Secret.

Crude oil reported from Petropavlosk on the Kamchatka Peninsula. Data obtained via the Far East Command (FEC). Single sheet card.

(h) FEC, ID HQ 548; CIA 324418. Information of March 1947. Secret.

Crude oil deposit reported at Petropavlosk on the Kamchatka Peninsula. Single sheet card.

(i) USFA, ID HQ V-1013; CIA 333258. January 1949. Confidential. Oilfield in South Georgian region. 3-sheet card and location map.

(j) USFA, ID HQ R-361-49; CIA 341543. 15 July 1949. Confidential. Oilfield in Kuban-Maikop region. 3 pp.

(k) USFA, ID HQ R-416-49; CIA 350627. 12 August 1949. Confidential. Data on city of Grozny with notes on Grozny oilfields and refineries. 5 pp. and location maps.

(l) USFA, ID HQ I-1124; CIA 352677. 12 July 1949. Confidential. Oilfield in Pechora region. Single sheet card.

(m) USFA, ID HQ XI-1006; CIA 354854. 20 July 1949. Confidential. Drilling for oil but no strikes reported near Dudinka on the Yenisei. Single sheet card.

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(n) EUCOM 7707 ECIC RT-1151-49 (ICF 2323-2333); CIA 354867. 5 September 1949.

Confidential. Oilfields in Ural, Kuban-Maikop, Georgian regions; shale oil mines in the Estonian area. 11 sheets of cards.

(o) USFA, ID HQ XI-1008; CIA 354495. 20 July 1949. Confidential. Oilfield reported at Krasnoyarsk in central southern Siberia, west of Lake Baikal. (No confirmation or direct evidence is actually available for any commercial crude oil production anywhere in Siberia.) Single sheet card.

(p) FEC, ID HQ 1980; CIA 367418. Information of October 1946. Secret. Oilfield near Andizhan in Fergana area, Soviet Central Asia. Single sheet card. For other reports on the Andizhan oil productive area, cf. FEC, ID HQ 1975 (July 1948 data), 1978 (November 1946 data), 1979 (July 1948 data), 1981 (May 1947 data).

(q) USFA, ID HQ R-515-49; CIA 374075. 21 October 1949. Confidential. Data on city of Oktabrsk, located about 25 miles southwest of Tuimaza in the Ural region. Contains notes on oilfield in area. 5 pp.

(r) USFA, ID HQ III-1185; CIA 393076. 4 July 1949. Confidential. Oilfield near Dushava in Carpathian region. 2-sheet card.

(s) USFA, ID HQ R-504-50; CIA 489669. 14 July 1950. Confidential. Data on city of Krasnokamsk in Kama region. Contains notes on oilfield and refining facilities in the area. 9 pp. including location maps.

(t) EUCOM 7707 ECIC RT-720-50 (EI 526); CIA 496530. 21 July 1950. Confidential. Oktabrsk-Tuimaza oilfields in Ural region. 4 pp. EI (Economic Intelligence Report).

(u) ENCOM 7707 ECIC RT-723-50 (EI 528); CIA 505902. 18 July 1950.

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Confidential. Oktyabrsk-Tuimaza oilfields in Ural region. 2 pp.

(v) EUCOM 7707 ECIC RT-1081-50 (EI 574); CIA 537843, 11 October 1950. Confidential.

Yablonska oilfield in Volga region. 6 pp. including location map.

(w) EUCOM 7707 ECIC RT-1152-50 (EI 598); CIA 545382. 2 November 1950.

Confidential. Oktyabrsk oil area. Single sheet card and 2 pp. of report.

(x) EUCOM 7707 ECIC RT-1162-50 (EI 602); CIA 555654. 8 November 1950.

Confidential. Oktyabrsk oilfield in Ural region. 4 pp.

(y) EUCOM 7707 ECIC RT-1172-50 (EI 603); CIA 555790. 10 November 1950.

Confidential. Yablonska oilfield in Volga region. 7 pp. including location map.

(z) FEC, ID HQ 10622; CIA 559860. 18 July 1949. Secret. Yelabuga oil-

field in Tatar, Ural region. Single sheet card.

(a¹) USFA, ID HQ (MIS) V-1227; CIA 568332. June 1950. Confidential.

Oilfield in South Georgian region. 2-sheet card and location map.

(b¹) USFA, ID HQ R-1217-50; CIA 569950. 29 December 1950. Confidential.

Note on oilwell drilling and refinery at Lilo, near Tbilisi in South Georgian region.

Note on construction of new oil pipeline on Caspian shore, parallel to oil pipeline

then under repair, Baku-Makhachkala. Single sheet card.

(c¹) FEC, ID HQ 14779; CIA 619584. 6 October 1950. Secret. Oilfield

in Fergana area. 3 pp.

(d¹) FEC, ID HQ 14264; CIA 623996. 5 September 1950. Secret. Okha

oilfield area on Sakhalin. 2-sheet card.

(e¹) FEC, ID HQ 14256; CIA 622763. 5 September 1950. Secret. East

Ekhabi oilfield on Sakhalin. 2-sheet card.

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- (f¹) FEC, ID HQ 14392; CIA 622779. 21 August 1950. Secret. Okha oilfield area on Sakhalin. 3-sheet card and sketch of technical apparatus.
- (g¹) FEC, ID HQ 15781; CIA 622843. 17 August 1950. Secret. Okha oilfield area on Sakhalin. 3-sheet card.
- (h¹) FEC, ID HQ 15782; CIA 622844. 17 August 1950. Secret. Katangli oilfield area on Sakhalin. 3-sheet card.
- (i¹) FEC, ID HQ 15588; CIA 624798. 14 December 1950. Secret. Ekhabi oilfield area on Sakhalin. 2-sheet card.
- (j¹) USFA, ID HQ (MIS) VIII-1365; CIA 625096. January 1950. Confidential. Pilyugino oilfield opened 1947 near Buguruslan, Volga region. Single sheet card.
- (k¹) USFA, ID HQ (MIS) VIII-1362; CIA 625098. January 1950. Confidential. Buguruslan oilfield area, Volga region. 2-sheet card.
- (l¹) USFA, IS HQ (MIS) VIII-1370; CIA B 279. June 1950. Confidential. Buguruslan-Pochvistnaya oilfield, Volga region. 10-sheet card.
- (m¹) FEC, ID HQ 14672; CIA 626437. 4 October 1950. Secret. Oilfield near Grunch-Mazar, Uzbek, Southeastern Soviet Central Asia region. 2-sheet card.
- (n¹) FEC, ID HQ 16960; CIA 628525. 24 July 1950. Secret. Pokhvistnew oilfield area near Buguruslan, Volga region. 2-sheet card.
- (o¹) USFA, ID HQ (MIS) VIII-1369; CIA 630084. 18 February 1950. Confidential. Buguruslan oilfield area, Volga region. 2-sheet card, location sketch.
- (p¹) USFA, ID HQ (MIS) VIII-1367; CIA 632232. 7 July 1950. Confidential. Buguruslan oilfield area, Volga region. 3-sheet card.
- (q¹) USFA, ID HQ (MIS) VIII-1368; CIA 632329. 10 February 1950. Confidential. Large oilfield near Buguruslan in Volga region. 12-sheet card and location sketch.

(r) FEC, ID HQ 16620; CIA 641217. 12 June 1950. Secret. Ekhabi oil field area on Sakhalin. Single sheet card.

(s) FEC, ID HQ 16596; CIA 648777. 30 August 1950. Secret. Okha oil field area on Sakhalin. 2-sheet card.

(2) Other Reports with Fragmentary Data.

25X1

(a) [] CIA 150360. 29 January 1948. Secret/US Officials Only.

Baku: data on oilfields, refineries, and natural gas. 2 pp.

25X1

(b) [] CIA 154871. 10 February 1948. Secret/US Officials Only.

Baku oilfields. 1 pg.

(c) Naval Intelligence 3-S-48; CIA 174927. 12 March 1948. Secret.

Petroleum exploitation on Sakhalin. 2 pp.

25X1

25X1

(d) [] 13 June 1948. Secret/ []

Petroleum exploitation near Nebit-Dag, Turkmen region. Single sheet enclosure. 25X1

Data probably much in error. []

25X1

[]

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(e) [] CIA 221080. 19 July 1948. Secret/US Officials Only.

Oilfield exploitation in the Emba region. 1 pg.

(f) Naval Intelligence 361-S-49. 16 August 1949. Secret. Data on new

Oktoberstadt (Second Baku) oil productive area. 1 pg.

25X1

(g) [] 25 November 1949. Confidential/US Officials Only. 25X1

Buzovny oilfield in Baku region. []

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(h) [] 23 August 1950. Secret/US Officials Only. Oilfield

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in Oktyabrsk Area, Ural region. Alleges no refineries to exist at Oktyabrsk or
Tulmaza. 2 pp.

(i) Wringer 8-328-1049. 29 October 1950. Secret. Oilfields in South
Georgian region with location sketch. 3 pp.

(j) Naval Intelligence R-343-50; CIA 558000. 26 October 1950. Unclassified
3 pp. Contains translation from Italian publication Il Tempo, 12 September 1950;
deals with Russian oilfields and their vulnerability to air attack.

25X1

(k) [] 1 March 1950. Secret/US Officials Only. Evidence of
New Interest in the Carpathian Oil Fields Near Khust. 1 pg.

25X1

(l) [] 10 May 1951. Confidential/US Officials Only.
Petroleum Activities at Ukhita. 2 pp. with sketch of exploratory well.

25X1

(m) [] 14 May 1951. Confidential/US Officials Only. Data
on Carpathian region with sketch of Stary Sambor city area. 2 pp.

25X1

(n) [] 2 June 1951. Confidential/US Officials Only. Notes
on test drilling for oil (and also oil shale) on the Dneiper River in the Eastern
Ukraine region. 1 pg.

1. Miscellaneous Notes on Soviet Petroleum Industry.

25X1

(1) [] CIA 194180. USSR: War and Postwar Development of the Oil
Industry. 7 May 1948. Restricted. Intelligence notes on the following: discoveries
and exploitations of new oil and gas fields during World War II; certain trends
in the productions of natural petroleum and natural gas; drilling technology and
practice; certain trends in refining developments. Based upon extensive surveys
of published Soviet literature. 2 pp. []

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now in the Research and Development Department of a major US oil company.

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(2) [] CIA 194192. USSR: Development of Fuel Resources. 7 May 1941.

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(3) [] CIA 194565. USSR: Petroleum Industry. 10 May 1948. Restricted.

Text of Italian periodical article, translated from Italian into English: USSR to

Make Up 30 Lost Years; Russian Geologists and Geophysicists in Search of 20 Billion

Tons of Petroleum. II Quotidiano Eritreo. Asmara, Eritrea, 15 February 1948.

Quotes figure for number of productive oilwells then exploited in the USSR, with

this figure fairly compatible with values derived from Soviet sources. (Gives

estimates of oil reserves that are merely indicative, and much more conservative than

more authentic data. Provides reasonably accurate data on realization of the Soviet

"State Plans" prior to 1948. Estimates the 1947 USSR petroleum production at 26.)

million metric tons, a value compatible with what is assumed in prevailing non-

Communist intelligence. Report also mentions a declaration of Marshal STALIN stating

it to be vitally important for the USSR to attain the mark of 60 million metric tons,

in the annual oil production by 1960. The probable reference is to Stalin's speech

of 9 February 1946, containing an inference that 60 million metric tons of annual

production should be the goal at least by the end of three more "Five Year Plans"

from that date (i.e., by 1960). Cf. References u(20), k(2). 3 pp.

25X1

(4) [] Soviet Petroleum Prospecting. 2 July 1951. Confidential/

US Officials Only. Single page of notes [] inferring

high quality in Soviet techniques.

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(2) [redacted] USSR: Petroleum Industry. 28 January 1949. Secret.

Intelligence notes on the following aspects of this industry: general policy of selecting managing personnel; equipment quality and availability; technological and engineering developments in drilling; economic, functional, and technological factors in attaining the "State Plan" goals; prospecting, exploitation, production, processing, and attendant technology in the Volga-Ural, Turkmen, and Fergana Valley (Eastern Soviet Central Asia) oil regions. 4 pp. [redacted]

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25X1 [redacted] Cf. Reference O (10)(f)

25X1 (3) [redacted] USSR: Estimate of Crude Oil Reserve Supply. 23 March

1949. Confidential/US Officials Only. Single page. [redacted] 25X1

25X1 (4) [redacted] USSR: Attainment of Plan Goals. 30 March 1949. Confidential/

US Officials only. Single page report. [redacted] 25X1

25X1 (5) [redacted] USSR: Chemical Research and Synthetic Fuel Administration.

30 March 1949. Confidential/US Officials Only. 2 pp. of notes including statement that only about ten percent of the technical work done in the USSR is published.

25X1



25X1 (6) [redacted] USSR: Petroleum Chemistry. 31 March 1949. Confidential/

US Officials Only. 2 pp. Series of notes pertaining to the production of chemical

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substances such as alcohols from petroleum. Makes reference to synthetic rubber manufacture and the derivation of raw charge stocks from petroleum for that processing. Refers to thermal and catalytic cracking progress, and makes mention of the prevalent Soviet practice of using reduced crudes for thermal cracking charge. Contains notes relative to synthetic fuel hydrogenation and the Soviet World War II application of the "hydrolysis" process. Source: [REDACTED] 25X1

25X1

(7) [REDACTED] USSR: Critical Analysis of Petroleum Production Figures

Which Appeared in the [REDACTED] 26 May 1949.

25X1

Secret/US Officials Only. Provides realistic and numerical estimates of exploitation and productivity in the separate USSR oil regions. Based upon professional

25X1

[REDACTED] Further correlated with a

comprehensive survey of official Soviet statements, in addition to the technical, statistical, and general information published in a given list of official Soviet periodicals. These estimates are derived for annual productions from 1910 to 1948, inclusive. Earlier total annual productions are also tabulated, beginning with 1913.

25X1

9 pp. [REDACTED]

25X1

(3) [REDACTED] USSR: Revised Estimate of Soviet Petroleum Production

25X1

(i.e., [REDACTED] cf. reference J(7)). 25 August 1949. Secret/US Officials

Only. The prior estimates are in this report correlated with a much more comprehensive survey of certain articles published in a long list of designated official Soviet periodicals. Also considered are additional data from other sources as noted in the report. The resulting revised estimates appear to be generally compatible with the productions assumed for these years in prevailing non-Communist

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intelligence. The report also provides some data on refinery installations, equipment manufacture, and functional organizations in the Soviet petroleum industry.

15 pp.

k. Data on the Fourth Five Year Plan for the Soviet Petroleum Industry.

(1) CIA 285628. The Law on the Five-Year Plan for the Restoration and Development of the National Economy of the USSR, 1946-1950. Foreign Documents Branch Translation No. 15/46. 22 February 1949. Restricted. Complete text as published by Ogiz, Gospolitizdat, Moscow, 1946. 76 pp.

(2) Special Supplement on the Fourth Five-Year Plan. Information Bulletin of the USSR Embassy, Washington, D. C., June 1946. Contains the details of the "State Plan" to terminate in 1950. Shows the petroleum production goals projected for the constituent (i.e., Soviet Socialist) Republics containing the productive regions. Also contains extract of Marshal STALIN's speech of 9 February 1946, asserting 60 million tons of annual oil production to be the ultimate goal, by inference within the course of a third future "Five Year Plan" (i.e., by 1960).

(3) UOP Co. Survey of Foreign Petroleum Literature. 2-9 August 1946 Issue. Some Data on the Planned Development of the Oil and Chemical Industries of the USSR for the Period 1946-1950. Contributions by N. BAIBAKOV, Minister of the Oil Industry for the USSR; N. A. VOZNESENSKII; A. PANOV; G. KOSYACHENKO; N. SHVETNIK and A. GORKIN for the Supreme Soviet of the USSR. Translations from Planirovka Khozyaystva (Planned Economy), 1946, No. 2 (pp. 5-63, 100-112, 136-147) and No. 3 (pp. 12-19). Covers coal, petroleum, and synthetic oil. 4 pp.

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(4) CIA 382036, Soviet Oil Production, ID report R-535-49, 18 November 1949.

Confidential. Translation of article, Oil in the Soviet Five Year Plan, published May 1949 (?) in Ze Pravda, Caracas, Venezuela; this is a publication said to be anti-Communist. Contains estimates of regional crude productions for 1940 and 1945. 3 pp.

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(5) [] 12 October 1949. Secret. Petroleum Trusts Exceed Plan

But Some Still Lag. Abstract translations of 7 technical articles published in Russian periodicals. Baku fields are inferred to be the most backward in meeting the Plan goal. 2 pp.

25X1

(6) [] 27 June 1950. Secret. Translation of article, Azerbaijani

Petroleum Industry Lags, published Bakinskiy Rabochiy, No. 79, 1950. 2 pp.

(7) CIA 553573, State Despatch, Moscow 331, 1950 Soviet Oil Production.

30 December 1950. Restricted. Report of 3 pp. with special features as follows.

In Marshal BULGANIN's speech of 6 November 1950, the level of Soviet crude production in the first 10 months of 1950 was stated to be 21 percent above the pre-war level.

Applying 32 million metric tons as the 1940 crude production, the anticipated 1950 crude production would be 121 percent of that, or 37.5 million metric tons.

In Minister of the Oil Industry N. BAIDAKOV's report to Stalin, published 24 December 1950, 2.2 million metric tons in excess of the 1950 "Plan" value were promised.

With the "Plan" figure at 35.4 million metric tons according to References k(1) and k(2) the 1950 crude production would result as 37.6 million metric tons.

Finally, Bulganin's speech brought out five points on the productivity status of the separate areas containing oil-bearing regions. First, these areas were mentioned

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as ones that had made rapid progress: Bashkir, Tatar, Kuibyshev, Kazak, Uzbek, Turkmen, and Sakalin. Second, these areas were said to have actually produced in 1949 the respective yields "planned" for them in 1950: Bashkir, Kuibyshev, Kuban-Maikop, Grozny, and Turkmen. Third, these areas were declared to have been restored to 1940 levels of production. Fourth, the eastern regions were credited with 44 percent of the total 1950 USSR production. Fifth, the Daku region was conspicuous due to lack of favorable mention. The eastern regions would therefore appear to have produced 16.5 million metric tons in 1950, or 44 percent of 37.5 million metric tons, whereas the report at hand notes that only 12.7 million metric tons was "planned" for them in 1950. Cf. CIA 593269 also.

(8) Information Bulletin of the USSR Embassy, Washington, D. C., 12 January 1951. Contains two papers by N. BAYBAKOV, Minister of the Oil Industry; Cf. References K(3), K(7), K(9), K(12), L(13), L(14), M(5). Report to Stalin: the 1950 "plan" for petroleum production was attained 30 December, and 2.2 million metric tons would be extracted in addition by the end of the year. Significant extracts from the article, Oil Workers Fulfill Five-Year Plan Ahead of Schedule: "A number of administrations under this ministry, such as Bashneft (Ural Region), Kuibyshevnft (Volga region), Krasnodarneft (Kuban-Maikop region), Turkmenneft (Turkmen region), and Grozneft (Grozny region) fulfilled their five-year plan even earlier - in 1949. The oil fields and refineries of Krasnodar (Kuban-Maikop) region, Grozny, and the Ukraine, which were devastated during the war, have been completely restored. A large new center of the oil industry has been built up in the eastern part of the

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USSR --- The national economy of the USSR imposed on the oil industry the task of intensifying oil prospecting in the most promising parts of the country --- Prospecting drilling (has been) more than quintupled --- Deep drilling in search for oil especially has become widespread in the postwar years --- The turbine method of drilling has become most effective in the eastern parts of the country with their hard geological formations --- Soviet oil workers used a new method, by which the oil in the ground is kept under constant pressure to deliver a maximum amount of oil --- New methods of extracting oil from ostensibly exhausted deposits are being widely applied in the oil fields of Azneft (Baku region), Gromneft (Grozny region), Krasnodarneft (Kuban-Maikop region), and other administrations --- The fields of Azerbaijan (Baku region) have been largely equipped with the most modern machinery, while rich new fields are being developed in the region bordering on the Caspian Sea --- The equipment of oil refineries has been greatly improved, leading to an increase in the quantity and an improvement in the quality of the oil products manufactured --- The oil fields and refineries that were devastated in the war have been restored, and many new fields, plants, pipelines, reservoirs, and workers' dwellings constructed --- In his historic speech of February 5, 1946, J. V. Stalin set before the workers of the Soviet oil industry the task of raising the output of oil to 60 million tons annually within a period of 15 years, (and) the oil industry workers are resolved to do their utmost to fulfill this task---

25X1 Cf. [] 2 February 1951, Secret, 2 pp., for abstract of this RAIRAKOV

report, published Pravda, 25 December 1950.

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(10)

29 January 1951. Secret. Abstracts of Articles in USSR

Periodicals. Kuban-Maikop, Grozny, and Western Ukraine oilfields were re-evaluated and provided with new technical equipment (Pravda, 6 December 1950). 1950 USSR oil production exceeded the Five Year Plan goal for the year (Pravda Ukraine,

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25 November 1950).

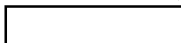



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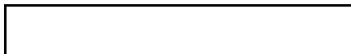
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Poor Technology Lowers BakuProduction, 12 July 1949, Secret, 2 pp; translation of Russian article in BakinskiyRabochiy, III (1949). Earlier 1949 releases in Bakinskiy Rabochiy (BR) made note,

however, of the use of new and improved techniques in exploiting the Baku petroleum
25X1A2G

reserves. For translations of pertinent 1949 BR articles, Cf. 
25X1A2G

 1 page: Drillers Set Record (i.e., in the Baku region), in

No. 37, and New Methods Used in Azerbaydzhan, in No. 88; 
25X1A2G

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Secret, 2 pp.: New Techniques Expand Production (i.e., in the Baku region),

25X1 in No. 91.



(13) CIA 606377. 23 April 1951. Confidential. Fourth Five Year Plan

25X1 Officially Ended. [] Gives some data on Soviet oil production, with the 1950 value given as 37.9 million metric tons. 4 pp.

(14) CIA 618810. State Despatch, Moscow 673. Soviet Oil Production: Fourth

25X1 Five Year Plan Results. 18 May 1951. Restricted. Source: [] 25X1

[] Includes estimated yields by USSR productive areas, for the years 1940, 1948, and 1950. Summarizes Fourth Five Year Plan results as published in Soviet press 17 April 1951. These latter published results describe the actual 1950 petroleum production as 107 percent of "plan" and 122 percent of the "prewar" rate of production. The 1950 "plan" production was 35.4 million metric tons, and the "prewar" base is ordinarily taken as that of the 1940 production at 31.1 million metric tons. The 1950 production would, therefore, be 37.9 million metric tons ($= 1.07 \times 35.4 = 1.22 \times 31.1$) instead of the lower value of 37.5 in use in intelligence.

(15) CIA 614027. 10 July 1951. Secret. A. IVANOV: Stalin's Industrial Base. Published in Posev (Sowing Time). 12 pp. of translation from Russian into English. Area Analysis Section, Technical Branch, ID, G-2.

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25X1

(16) [] 1951. Secret. Bashkiria Reports 1950 Achievements, 1951

Pledges, Methods of Petroleum Extraction. English translations of published

Russian articles. 3 pp.

25X1

(17) [] 10 August 1951. Secret. 7 pp. of English translations of

four articles published in Russian. These give percentage increases and plan fulfillments for crude oil production in the Saratov and Chkalov Oblasts, and in the Emba and Grozny regions.

25X1

(18) [] USSR: Petroleum Industry, Production. 15 December 1951.

Restricted. Extracts from Erdoel in der Sowjetunion by HEINRICH HASSMAN, published by Industrieverlag von Bernhausen K. G. 7 pp. Covers 1950 data: gives estimates of crude production by regions; of total synthetic oil production, with brief notice of the reported reinstallation of German synthetic oil plants in the area of Lake Baikal; of the total number of oilwells producing; of the total oil consumption by categories of usage but not by products; of the status of oil refineries by sites, with values shown for capacity totals; of the status of oil pipelines; of the availability of steel for the petroleum industry (requirements estimated at one ton of steel for every 30-35 tons of petroleum produced); and of the oil imported from Satellites. Much of the data thus reported does not appear to be confirmed by other available intelligence. In particular, the regional crude production estimates seem to result in part by minor variations of the "State Plan" goals for 1950. The estimate of 17 million metric tons from the Baku region is believed to be much too high and the estimate of 10.6 million metric tons from the Volga-Ural area as

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believed to be too low. The reported data on petroleum refineries are considered to be of little value in view of the general evidence in other intelligence sources. Fifty-three sites of refineries are listed, but other source data indicate that the refining installations at a number of these places must be trivial if any true refining equipment is in fact installed. Sixty-six so-called "refineries" are mentioned although it is known that several Soviet installations at different locations are often required to constitute what is understood to be a complete refinery for the processing of crude in the US. "Total refining capacity" is estimated at 33-35 million metric tons, and the "cracking capacity" is estimated at 13-14 million metric tons. These values have no technical meaning as stated, and if the former is actually crude charge capacity while the latter is true cracking charge capacity, preponderance of other evidence shows the values to be much too low.

2. Data on Soviet Petroleum Industry Technology.

25X1 (1) [] 14 April 1948. Confidential. Text of report: Field Tests of

Rebinders Method of Drilling Acceleration. 24 March 1948. Report on a Soviet

method to reduce the hardness of formations in drilling, with the techniques applied

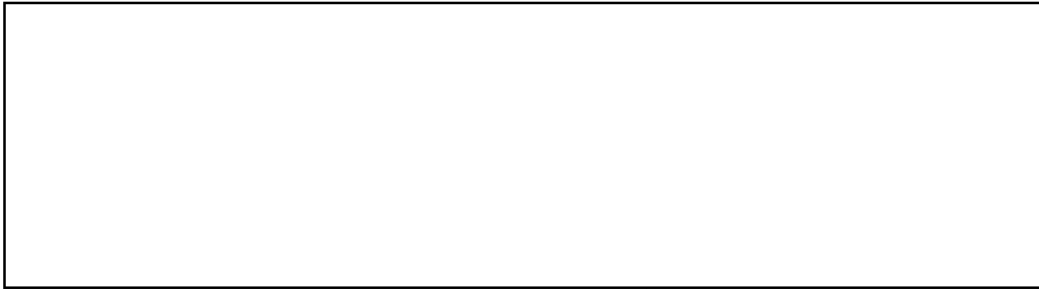
to rotary drilling in the US. []

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[redacted] for earlier report on Rebinder tech-

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nique, [redacted]

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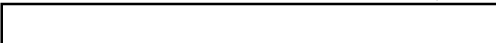
(2) [redacted] 3 May 1948. Confidential. Text of report: Research of
Rebinder and Co-workers on Accelerating Drilling, 13 January 1948. Initial report
made by the source of Reference 1 (1) [redacted]

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(3) [redacted] 15 March 1949. Confidential/US Officials Only. USSR:
Observations on Chemical Research as Applied to Fuels. 3 pp. of condensed notes by

25X1



25X1

(4) [redacted] USSR: Current Research on Petroleum and Related Fields.
20 May 1949. Confidential/US Officials Only. 11 pp. of extensive notes on Soviet
petroleum industry technology. [redacted]
Makes bibliographical references to published Russian literature. Notes continued
in Reference 1 (5).

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(5) [redacted] USSR: Survey of the Petroleum Industry. 15 July 1949.
Confidential/US Officials Only. 19 pp. of comprehensive intelligence notes by

25X1

[redacted] Most of these notes refer to
the more important Soviet technological developments where the latter pertain to
the following: prospecting; drilling; oilwell exploitation; refining techniques

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including catalysis; crude oil and refined product treating; manufacture of particular products such as lubricants, special oils, special chemicals, and miscellaneous byproducts; physical and chemical analytic techniques to determine (or control) the qualities (or quantities) of given stocks; manufacture and use of synthetic materials substituted for natural petroleum and natural gas (i.e., synthetic liquid fuels, and the synthetic fuel gases such as coal gas, producer gas, and water gas); handling techniques in transportation and storage of stocks. Other notes are also given, however, with reference to: research personnel in the USSR petroleum industry; natural petroleum reserves in the USSR; actual records of oilwell drilling and exploitation practices in the USSR; actual records of refinery constructions in the USSR. All of these notes are fairly consistent with other intelligence data available, and they appear to be generally accurate and authoritative. Included with this report there are the following: a table showing USSR petroleum reserves; a map showing the principal Soviet oil and gas deposits geographically; and a drawing of the 1943 model of the Soviet turbodrill. For other classified intelligence reports by the source of this report, in addition to those listed under References 1 (1), (2), (3) and (4), of the following: 25X1A2G

on sulfonic acids as petroleum byproducts in the USSR; 25X1A2G

gases in the USSR; 25X1A2G

in the World War II Soviet practice of sealing the earth walls of pits for oil storage, by precipitating a film coating of ferric hydroxide; and 25X1A2G

on Soviet methods for octane number determination.

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(6) Novel Russian Method of Prospecting for Oil. Foreign Commerce Weekly,

29 June 1946. A note on the geobiological correlation depending on the presence of certain types of bacteria in the soil.

(7) Economic Information, July 1947. Confidential. English abstract trans-

lations of articles dealing with Soviet petroleum technology, published in Russian.

No. 243: Neftyanoye Khozyaystvo No. 6 (1947). No. 257: Azerbaidzhanskoye Neft-
yanoye Khozyaystvo No. 6 (1947). 2 pp.

(8) Economic Information, No. 6, February 1948. Confidential. 2 pp. of English

translation of the Russian technical paper, The Prospecting and Exploitation of

Oil Deposits Under the Sea Must be Accelerated, Azerbaidzhanskoye Neftyanoye

Khozyaystvo No. 12 (1947).

25X1 (9) [] 28 April 1949. Confidential. 2 pp. of English abstract

translation of the Russian technical paper by M. A. KAPELYUSHNIKOV, Problems

Encountered in Drilling Deep Oil Wells and Methods of Solving Them, Izvestiya

No. 1 (1949).

25X1 (10) [] June 1949. Confidential/US Officials Only. USSR: Lack of

Initiative and Technical Competence of Petroleum Engineers. Sources: US technolo-

gists. 2 pp.

25X1 (11) [] 2 August 1949. Secret. 2 pp. of English abstract translation

of a Russian technical article in Izvestiya, describing a new method of oilwell

derrick assembly.

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(12) Treasure Island 36925. Abstract 9 January 1950. Restricted. Abstract

translation of the Russian technical article, Academies of Sciences and Scientists.

Oil, Coal, and Gas Deposits, N. Pravda Vostoka (Truth of the East), 28 June 1947.

Gives technological details of deposits; describes technology of exploration.

25X1 (13) [] 13 July 1950. Secret. N. BAIBAKOV: Petroleum Workers Spur

Technical Progress, Izvestiya 22 June 1950. English translation of a paper on

petroleum industry technology in the USSR. 4 pp.

(14) Naval Intelligence 109-50; CIA 524301. 5 September 1950. Restricted.

N. BAIBAKOV: Current Tasks of the Oil Industry. Translation of the Minister of the

Oil Industry's paper, dealing briefly with the techniques employed in this Soviet

industry. 11 pp.

25X1 (15) [] 11 January 1951. Confidential/US Officials Only. Comments

on Petroleum Geological Development. 3 pp. of extensive notes on the Soviet tech. 25X1

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nological methods in geology.

(16) I. M. MURAV'YEV, A. P. KRYLOV, Exploitation of Oil Wells. Russian tech-

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nical book with comprehensive coverage of the subject. Cf. [] 1 March 1951

Confidential, 6 pp., for English translation of the table of contents of this book.

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25X1 (17) [] 10 March 1951. Secret. Up to Date Equipment and Drilling

Methods Increase Petroleum Production.

Extract translations of various articles

published in Soviet periodicals. 3 pp.

25X1 (18) [] 2 July 1951. Confidential/US Officials Only. Soviet

Petroleum Prospecting. Comments on the technology. []

25X1

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m. Data on the Soviet Turbodrill and Rotary Drilling.

(1) S. VEZIROV, New Drilling Method. Information Bulletin of the USSR Embassy,

Washington, D. C., 14 May 1947. Information on the Soviet turbodrill.

(2) CIA 129765. Enclosure: Development and Use of the Turbodrill in the USSR.

10 September 1947. Secret. 5 pp. of technological memorandum, summarizing authentic

Soviet data with respect to the turbodrill. []

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describes the pilot plant manufacture of a prototype in the US, then ready for testing.

25X1 (3) [] N. I. BUYANKOVISKIY, Experiments in Fast Drilling in the Tsy-

mazaneft Oil Field. Naftyanoye Khozyaystvo, No. 11, 1947. 20 October 1948.

Restricted. English translation from Russian. 11 pp. of turbodrill operation records in the Ural oil region.

25X1 (4) [] January, February 1949.

Confidential. Five single page reports. Each consists of a record of official

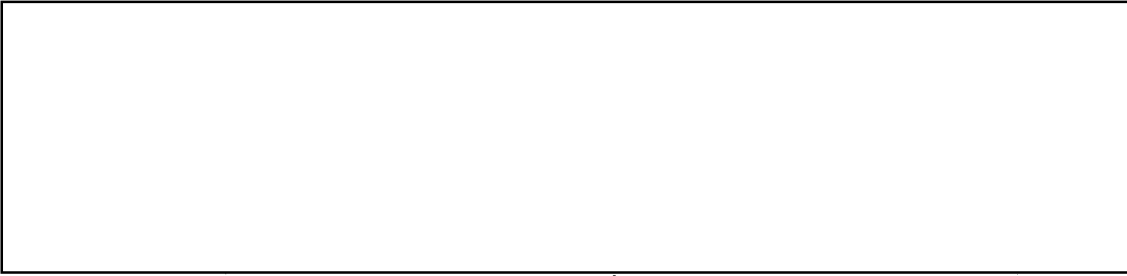
comments upon Reference m (3). These sets of comments were respectively made in the

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25X1 (5) [redacted] Abstracts of articles in Soviet periodicals. 21 March 1950.

Secret. N. BAYBAKOV (Minister of Petroleum Industry USSR), Speed in Drilling Wells Increase, Pravda, No. 363, 29 December 1949: pertains to use of turbodrill, especially in the Ural Region. Achieve Drilling Record, Bakinskiy Rabochiy, No. 2, 3 January 1950: about 14,250 feet per rig per month claimed as a drilling record in "well No. 499" of the Buzovnyeft Trust, presumably using the turbodrill.

25X1X7 (6) [redacted]

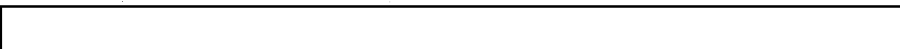
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APPENDIX B

SURVEY OF PROBABLE FUTURE CRUDE PRODUCTIONS BY REGION

Estimates of future USSR petroleum productions are included in I-A, Availability of Crude Petroleum in the USSR, in this report. Steady increases are indicated in the annual productions for the next several years to come. It is further indicated that most of the future productivity increase will be obtained from the areas designated as Second Baku and Soviet Central Asia. It is probable that increases in the latter area will finally predominate. These conclusions are based upon fairly firm technical data pertinent to the Soviet sedimentary basins suitable for oil accumulation. Fragmentary reports have already inferred significant new oil discoveries in Soviet Central Asia, in the vicinity of the Aral Sea depression.

The most favorable USSR oil prospects are present in the sedimentaries of the Second Baku, the Soviet Caucasus, and Soviet Central Asia. Small productions are obtained from certain other areas in European Russia, but these source areas are not particularly favorable for large new production. The expanses of Siberia are known to contain small and scattered basins with possible oil prospects, and traces of oil have been reported in places, in the Lake Baikal region but more especially northward and eastward towards the Arctic and Pacific Oceans. Known geology and available intelligence indicate little prospect for considerable commercial production in any of the Siberian sediments. Sakhalin Island furnishes the only commercial oil production obtained in the Soviet Far East. Recorded data are available in some detail, to show the limited probability of a much increased productivity on that island.

While the Caucasus isthmus contains the oldest and formerly most prolific of the USSR oilfields, and also contains basin areas not yet fully prospected, it is not probable

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that new discoveries will completely compensate for depletion in the old pools, even though the old fields continue to contribute heavily to the total USSR production.

The Second Baku is a large area with good prospects in a complex system of basins. Numerous fields are highly productive in the Second Baku, and organization exists for extensive prospecting, exploitation, and much expanded future production. The Second Baku oil quality has been generally indicated to be inferior, however, and in Soviet Central Asia the actual unprospected favorable sedimentaries are much more expansive. As compared with the Second Baku, Soviet Central Asia has better quality oils and more productivity reasonably in prospect. But due to intensive use of the facilities already organized in the Second Baku, the net production increase in that area will probably exceed the increase in Central Asia until the more recently intensified activities are in full force in the basins of the latter.

Examples of estimated future USSR regional productions are shown in the Table 4. These estimates are for the year 1955 with a value of 52 million metric tons applied as a rounded figure for the total USSR production in that year. The table shows the 1955 productions by areas, compared with the corresponding estimated productions from identical regions in 1950. Of the net annual productivity increase indicated within this period of time, the major part is about equally divided between Soviet Central Asia and the Second Baku.

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~~SECRET~~**CONFIDENTIAL**Table 4. Estimated USSR Crude Productions by Areas, 1950 and 1955

	Estimated Natural Petroleum Productions Millions of Te/Yr ^{a/}	
	1950	1955
<u>General Soviet Areas Including Oil Productive Regions of 1950</u>		
<u>Ukraine and Crimea Area</u>		
Carpathian, Eastern Ukraine, Crimea Oil Regions	0.34	} 0.4
New Oil Productive Regions <u>b/</u>	—	
<u>Western Soviet Caucasias</u>		
Kuban-Maikop Oil Region	2.4	} 3.0
New Oil Productive Regions <u>b/</u>	—	
<u>Central Soviet Caucasias</u>		
Grozny Oil Region	2.1	} 2.0
New Oil Productive Regions <u>b/</u>	—	
<u>Eastern and Southeastern Soviet Caucasias</u>		
Baku, Daghestan, South Georgian Oil Regions	16.16	} 15.0
New Oil Productive Regions <u>b/</u>	—	
<u>Soviet Central Asia including Kazakhstan</u>		
Emba, Turkmen, Southeastern (Fergana, etc.) Oil Regions	3.7	} 11.0
New Oil Productive Regions <u>b/</u>	—	
<u>Second Baku including Saratov Gas Fields</u>		
Volga, Ural, Kama Oil Regions	11.5	} 19.0
New Oil Productive Regions <u>b/</u>	—	
<u>Northeastern European Russia</u>		
Pechora Oil Region	0.5	} 0.6
New Oil Productive Regions <u>b/</u>	—	
<u>Far Eastern USSR</u>		
Sakhalin Oil Region	0.8	} 1.0
New Oil Productive Area <u>b/</u>	—	
USSR Total	37.5	52.0

a/ Te/Yr designates metric tons per year.b/ New oil regions of the future; not producing in 1950.**CONFIDENTIAL**

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